

**U. S. ENVIRONMENTAL PROTECTION AGENCY
COLLECTION OF AQUATIC ANIMAL PRODUCTION INDUSTRY DATA**

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INTRODUCTION

The U.S. Environmental Protection Agency (EPA) is conducting a survey of the aquatic animal production industry as part of its effort to develop effluent limitations guidelines and standards for this industry. The technical data collected in this survey will be used to determine the production rates of industry, use of water for processes, rates of wastewater generation, and the practices of wastewater management, treatment, and disposal. The financial and economic data will be used to characterize the economic status of the industry and to estimate the possible economic impacts of wastewater regulations.

COMPLETION OF THE SURVEY

Each question should be completed by the person(s) most knowledgeable about the information requested. All facilities must have the corporate official or designee responsible for directing or supervising the survey response sign the Certification Statement (located on page iii) to verify and validate the information provided.

EPA has prepared this survey to be applicable to a variety of facilities; therefore, not all of the questions will apply to each facility. Complete each applicable item in the survey. In the event that exact data are not available, provide best financial estimates and note the methods that were used to make the estimates on the Comments page. General instructions are provided on page iv, and additional instructions are provided with each question. A complete set of definitions can be found in the Definitions Section, starting on page v.

EPA AQUATIC ANIMAL PRODUCTION SURVEY HELP LINES

Questions about Technical Information

Technical Contractor. (800) xxx-xxxx
Internet Electronic Mailing Address xxx@xxx.xxx

Questions about Financial and Economic Information

Eastern Research Group, Inc. (888) xxx-xxxx
Internet Electronic Mailing Address aqua_partb@erg.com

AUTHORITY

This survey is conducted under the authority of Section 308 of the Clean Water Act (Federal Water Pollution Control Act, 33 U.S.C. Section 1318). **All facilities that receive this survey must respond to it.** Return all portions of the survey to the EPA **within 45 days** of receiving it. Late filing or failure to comply with these instructions may result in criminal fines, civil penalties, and other sanctions, as provided by law.

If you wish to request an extension for your facility or discuss a delivery schedule for a company with multiple facilities, you must do so **in writing** within 20 days of receipt of this survey. Send written requests to:

Ms. Marta Jordan
U.S. Environmental Protection Agency (4303)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Extension requests will be evaluated on a case-by-case basis. Submittal of an extension request to EPA does **not** alter the due date of your survey.

PROVISIONS REGARDING DATA CONFIDENTIALITY

Regulations governing the confidentiality of business information are contained in the Code of Federal Regulations (CFR) at Title 40 Part 2, Subpart B. You may assert a business confidentiality claim covering part or all of the information you submit, other than effluent data, as described in 40 CFR 2.203(b):

“(b) Method and time of asserting business confidentiality claim. A business which is submitting information to EPA may assert a business confidentiality claim covering the information by placing on (or attaching to) the information, at the time it is submitted to EPA, a cover sheet, stamped or typed legend, or other suitable form of notice complying language such as 'trade secret,' 'proprietary,' or 'company confidential.' Allegedly confidential portions of otherwise nonconfidential documents should be clearly identified by the business, and may be submitted separately to facilitate identification and handling by EPA. If the business desires confidential treatment only until a certain date or until the occurrence of a certain event, the notice should so state.”

If no business confidentiality claim accompanies the information when it is received by EPA, EPA may make the information available to the public without further notice.

You may claim as confidential all information included in the response to a question by checking the Confidential Business Information (CBI) box next to each question number for which responses contain CBI. Alternatively, all questions in this survey marked with a CBI check box may be claimed confidential now by checking the box at the end of this paragraph. If you do not check this box, any individual response where “CBI” is **NOT** checked will be considered nonconfidential. Note that you may be required to justify any claim of confidentiality at a later time. Note also that plant effluent data are not eligible for confidential treatment, pursuant to Section 308(b) of the Clean Water Act, and thus will be treated as nonconfidential even if the “all CBI” box is checked.

All Eligible Data are CBI G

Information covered by a claim of confidentiality will be disclosed by EPA only to the extent, and by means of, the procedures set forth in 40 CFR Part 2, Subpart B. In general, submitted information protected by a business confidentiality claim may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the Clean Water Act.

Information covered by a claim of confidentiality will be made available to EPA contractors under EPA Contract Numbers 68-C6-xxxx and 68-C6-0022 {other contracts?} to enable the contractors to perform the work required by their contracts with EPA. All EPA contracts provide that contractor employees use the information only for the purpose of performing the work required by their contracts and will not disclose any CBI to anyone other than EPA without prior written approval from each affected business or from EPA's legal office. Any comments you may wish to make on this issue must be submitted in writing along with your completed survey.

WHERE TO RETURN THE SURVEY

After completing the survey and certifying the information that it contains, use the enclosed mailing label to mail the completed survey to:

U.S. Environmental Protection Agency
Collection of 1999 Aquatic Animal Production Industry Data
c/o {Technical Contractor}
{Street}
{City, State Zip}

Retain a copy of the completed survey, including attachments. EPA will review the information submitted and may request your cooperation in answering follow-up questions, if necessary, to complete analyses.

CERTIFICATION STATEMENT

I certify under penalty of law that the enclosed survey response was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, accurate and complete. In those cases where we did not possess the requested information, we provided best financial estimates in response to the questions. We have to the best of our ability indicated what we believe to be company confidential business information as defined under 40 CFR Part 2, Subpart B. We understand that we may be required at a later time to justify our claim in detail with respect to each item claimed confidential. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment as explained in Section 308 of the Clean Water Act.

Signature of Certifying Official

Date

Printed Name of Certifying Official

(_____)
Telephone Number

Title of Certifying Official

GENERAL INSTRUCTIONS

Read all question-specific instructions and definitions. Carefully read the definitions provided, starting on page v. The definitions are provided to assist you in completing the survey, and are consistent with EPA definitions in 40 CFR Part 420.

Mark responses for each question. Fill in the appropriate response(s) to each question. Please use **black ink** or **type** in the spaces provided. If the space allowed for the answer to any question is inadequate for your complete response, continue the response in the Comments area at the end of each section of the survey, cross-referencing the appropriate question number. If additional attachments are required to clarify a response, place the associated question number and your site ID number (shown on the cover page) in the top right corner of each page of the attachments.

Answer all questions unless instructed otherwise. The purpose of this survey is to gather all available information pertinent to aquatic animal production operations. Report only whole numbers, unless instructed otherwise. If a question is not applicable to your facility, write "NA". As noted throughout the survey, you are requested to provide best financial estimates when data are not readily available. If you provide an estimate, note the methods that were used to make the estimates on the Comments page at the end of Section 1. EPA does not intend for facilities to conduct detailed studies to obtain the data. If you feel you need to conduct a detailed study, please call the Technical Information Helpline at (888) xxx-xxxx or e-mail your questions to aqua_partb@erg.com.

Some pages in this survey may need to be photocopied before you respond. Indicate how many copies of the page you are submitting by completing the entry "Copy ___ of ___" in the top right corner.

Pay close attention to the measurement units requested in each question. Report answers in the units that are specified.

Enter zero (0) where appropriate. Leave an entry blank only if instructed to do so (e.g., if the answer is zero, enter a zero (0)).

Indicate information that should be treated as confidential. Please follow the instructions given in the "Provisions Regarding Data Confidentiality" section on page ii. If information for a given question is considered confidential business information, indicate this by checking the box next to each question as desired or by checking the "All Eligible Data are CBI" box on page ii. If the "All Eligible Data are CBI" box is not checked, any question response where the corresponding "CBI" box is not checked will be considered nonconfidential.

Include financial statements with Question 36. With your completed survey include 1999 financial statements (i.e., balance sheet, income statement, and accompanying notes for companies, or Form 1040 Schedule F and a listing of assets and liabilities for individuals) for the company. You may submit annual reports if they contain the relevant information.

Sign and return to EPA the Certification Statement for Part B (page iii). Include the Certification Statement with the completed survey.

Questions. If you have any questions, please call the Technical Information Helpline at (xxx) xxx-xxxx or the Financial and Economic Information Helpline, operated by Eastern Research Group, Inc. (ERG), EPA's economics contractor, at (888) xxx-xxxx. Alternatively, you may e-mail the Technical Information Helpline at xxx@eee.com or the Financial and Economic Information Helpline at aqua_partb@erg.com. The helplines are staffed Monday through Friday from 9:00 AM until 5:00 PM, Eastern Standard Time.

Retain a copy of the completed survey for your records. EPA will review the information submitted and may request, if necessary, your cooperation in answering follow-up clarification questions to complete the data collection effort. Please keep a copy of the completed survey, including attachments, in case you (i.e., the contact identified in Question 2) are contacted to clarify your responses. Also, please maintain a record of sources used to complete the questions.

DEFINITIONS - TECHNICAL

Algae. Simple chlorophyll-containing organisms composed of one cell and grouped together in colonies, or as organisms with many cells, sometimes collaborating together as simple tissues. Examples include: Micro, Macro, and Nori.

Broodstock. Adult fish retained for spawning.

CBI. Confidential Business Information.

Chlorination. Used for disinfection purposes, may also be used in wastewater treatment to remove ammonia.

Clarifier. Type of sedimentation basin.

Composting. An aerobic process to stabilize sludge by reducing organic concentrations, reclaiming nutrients, and eliminating pathogens.

Crustaceans. Invertebrate animals with many jointed legs and a hard external shell, such as crawfish, shrimp or prawns, and softshell crabs.

Denitrification. The process of reducing nitrates and nitrites to nitrogen gas.

Effluent Limitations Guidelines and Standards. Regulations promulgated by U.S. EPA under authority of Sections 301, 304, 306, and 307 of the Clean Water Act that set out minimum, national technology-based standards of performance for point source wastewater discharges from specific industrial categories (e.g., aquatic animal production facilities). Effluent limitations guidelines and standards regulations are implemented through the NPDES permit and national pretreatment programs and include the following:

- C Best Practicable Control Technology Currently Available (BPT)
- C Best Available Technology Economically Achievable (BAT)
- C Best Conventional Pollutant Control Technology (BCT)
- C New Source Performance Standards (NSPS)
- C Pretreatment Standards for Existing Sources (PSES)
- C Pretreatment Standard for New Sources (PSNS)

The pretreatment standards (PSES, PSNS) are applicable to industrial facilities with process wastewater discharges to publicly-owned treatment works (POTWs). The effluent limitations guidelines and new source performance standards (BPT, BAT, BCT, and NSPS) are applicable to industrial facilities with direct discharges of process wastewaters to waters of the United States.

Facility. Also called a farm. A facility is generally one contiguous physical location at which aquatic animal production operations occur. In some instances, it may include property located within separate fence lines, but located close to each other.

Fingerling. Young fishes, larger than a fry, but not an adult, up to 1 year old.

Food fish. Fish raised for food or for either food or sport such as carp, catfish, hybrid striped bass (sometimes referred to as rockfish), perch, salmon, sturgeon, tilapia, trout, and walleye. Examples of fish in the "other" food fish category include croakers, moi, and redfish.

Fry. Very young post-larval fish that have not undergone metamorphosis into juveniles or fingerlings.

Hybrid Striped Bass. A cross of Morone species, including palmetto bass (striped bass female and white bass male), sunshine bass (white bass female and a striped bass male) is generally used for food fish production. Other

hybrids crosses include the Maryland bass (white perch female and striped bass male), the Virginia bass (striped bass female and white perch male) and the paradise bass (striped bass female and yellow bass male).

Incineration. The process of drying and reducing sludge volume and weight using thermal combustion.

Lagoons. Earthen ponds (most common settling basins).

Land Application. The process of applying sludge to land if suitable land is nearby such as agricultural land.

Land Disposal. Application of sludge at a landfill, widely practiced technique for residual sludge disposal.

Mollusks. Invertebrate animals with soft body coverings and shells of 1-18 parts or sections. This category includes the production of clams, mussels and oysters. Examples of mollusks in the “other” mollusk category include abalone, and snails.

NAICS. North American Industry Classification System. NAICS is replacing the U.S. SIC system. NAICS was developed jointly by the U.S., Canada and Mexico to provide new comparability in statistics about business activity across North America. NAICS is a unique, all-new system for classifying business establishments. It is the first economic classification system to be constructed based on a single economic concept. Economic units that use like processes to produce goods or services are grouped together. This “production-oriented” system means that statistical agencies in the United States will produce data that can be used for measuring productivity, unit labor costs, and the capital intensity of production; constructing input-output relationships; and estimating employment-output relationships and other such statistics that require that inputs and outputs be used together.

Nitrification. The biological process of converting ammonium to nitrite and nitrite to nitrate.

Ornamental fish. Various fish raised for water gardens, aquariums, etc., such as angelfish, koi, ornamental goldfish, and tropical fish. Examples of fish in the “other” ornamental fish category include guppies and ornamental catfish.

Other aquatic animal production. The production of alligators, frogs, turtles, and egg and seed stock not listed separately.

Ozonation. Triatomic oxygen molecule used to disinfect water.

Pollutant (to water). Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, certain radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. See CWA Section 502(6); 40 CFR 122.2. Other items considered as pollutants include feed, drugs, herbicides, pesticides, antimicrobials, cleaners, water softeners, water clarifiers, chlorinators, (any chemicals added to water).

POTW or POTWs. Publicly owned treatment works. A treatment works as defined by Section 212 of the CWA, which is owned by a state or municipality (as defined by Section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in Section 502(4) of the CWA, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

Sample Year. The year a sample was taken and measured.

Screens. Devices that physically trap particles and are used to remove solids from water and large inorganic solids from sewage and industrial wastes.

Sedimentation Basins. Filtration process that uses gravity to remove solids from a liquid. Designed to slow effluent flows so that suspended solids settle out.

Seed. Young animals, generally oysters, clams, scallops, or mussels, used for stocking.

Settling Tubes. Mechanical filter that uses a series of tubes to enhance gravitational separation.

SIC. Standard Industrial Classification. A numerical categorization system used to denote segments of industry. An SIC code refers to the principal product, or group of products, produced or distributed, or to services rendered by an operating establishment. SIC codes are used to group establishments by the primary activity in which they are engaged.

Sport/game fish. Facility-raised fish for sport or game fishing, such as largemouth bass, bluegill, crappie, and sunfish. Examples of fish in the "other" sport/game fish category include muskie, northern pike, and small mouth bass.

Stockers. Fish that are large enough to be placed in the final grow-out pond, net pen, or tank.

Surface Water. A source of water such as a lake or stream.

UV Radiation. Light in the wave length ranges of about 150 angstroms to about 4000 angstroms used to disinfect water. The most effective wavelength is about 2600 angstroms and it has been shown to be effective at killing bacteria, viruses, fungi, and some small organisms. Most effective in sediment-free water.

Vacuum Trucks. Trucks used for the removal of solid waste from ponds, tanks, clarifiers, etc.

Waste Stabilization Lagoons. (Aerobic and Anaerobic stabilization ponds.) Large, shallow earthen basins which use natural processes involving both algae and bacteria to treat wastewater.

Wastewater. Any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. Any chemicals added to water that was not initially in the source water. The following examples describe the definition of wastewater for some of the production types used in the industry although not limited to just these systems.

Flow-Through systems- Wastewater includes water that runs through the facility and is discharged to waters of the U.S. including waters that have been diverted to treatment areas including settling basins and retention ponds.

Ponds - Wastewater includes any water that is discharged from the system including water discharged as part of harvesting, pond maintenance practices, or cleaning practices.

Recirculating Systems - Wastewater includes waters that are discharged daily from the system to municipal sewer, septic, storm drain, retention pond, or other water body as part of cleaning and normal system operations.

DEFINITIONS - ECONOMIC AND FINANCIAL

Accrual Method of Accounting. A method of financial accounting whereby events (generation of income or revenue, incurring expenses, etc.) that change the financial position of a business are recorded in the time period in which the events actually occur. Income or revenue is recorded when earned and expenses are recorded when incurred. This is in contrast to the cash method of accounting where revenue is recorded only when cash is received and expenses are recorded only when cash is paid.

Balance Sheet. The total resources controlled by a business and total claims against those resources at a single point in time. Accounting data which express the financial position are presented in a balance sheet, otherwise called a statement of financial position. That is, a balance sheet shows the assets, liabilities, and owner equity of a business at a specific date.

Cash Method of Accounting. A method of financial accounting in which revenue or income is recognized and recorded only when cash is actually received and expenses are recognized and recorded only when cash is actually paid, all regardless of the time when the agreement and/or obligation to sell, purchase, or otherwise pay may have been incurred.

CCC Loans. Commodity Credit Corporation loans.

Company. The proprietorship, partnership, corporation, or other legal entity that directly owns this facility. A company is distinguished by being able to provide complete financial statements through net income, and may own more than one facility. If the facility has no other ownership and has complete financial statements, the facility and the company are the same.

Fee-fishing. The practice in which anglers pay for the right to fish or for any fish that are caught.

Fee-fishing Operation. For purposes of this survey, defined as “fish-out” ponds, “pound” lakes or “pay-by-the-pound” lakes.

Financial Statements. Balance sheet and income statement that were derived from accounting records according to “Financial Guidelines for Agricultural Producers” recommendations of the Farm Financial Standards Council or generally accepted accounting principals (GAAP).

Income Statement. An income statement, also called a profit/loss statement, measures the results of operations by presenting the income or revenues and expenses of a business during a specific accounting period.

Publicly Held. A publicly held company is one whose stock is traded on the open market, e.g. NASDAQ. The public is able to purchase stocks, thereby owning part of the company.

Statement of Financial Position. See “balance sheet.”

This page intentionally blank.

INFORMATION CONTACT AND FACILITY INFORMATION

1. If the mailing address on the label on the envelope is correct, check the box in 1a. If the information is not correct, check the box in 1b, and enter the correct information in the spaces below.

- a. Yes, the mailing address is correct ¹ **G**
- b. No, the mailing address is not correct (please correct below) ² **G**

Name of site: _____

Mailing address or P.O. box: _____

City: _____ State: _____ Zip: _____

G CBI 2. Provide the name, title, and telephone number of the individual who can answer questions concerning information provided in this survey.

a. Contact name: _____

b. Contact title: _____

c. Telephone number: () _____

d. When is the most convenient day and time to call?

(Circle best days) Mon. Tues. Wed. Thurs. Fri. Any day

_____ AM/PM (local time)

3. Did this facility discharge wastewater from aquatic animal production operations in 1999? For purposes of this industry, wastewater includes water discharged to waters of the U.S., including waters that have been: diverted to treatment areas; discharged as part of harvesting; pond maintenance or cleaning practices; discharged to municipal sewers, septic, storm drains, retention ponds or other water bodies. (For more complete definitions, see wastewater definition on page vii.)

a. Yes ¹ **G**

b. No ² **G**

IF NO, STOP HERE. SIGN THE CERTIFICATION ON PAGE iii AND RETURN THE SURVEY TO:

U.S. Environmental Protection Agency
Collection of 1999 Aquatic Animal Production Industry Data
c/o {Technical Contractor}
{Street}
{City, State Zip}

GENERAL FACILITY INFORMATION

- G CBI 4.** Which of the following statements best describes this facility? (Check one box)
- a. Aquatic animal production is the only agricultural activity ¹ **G**
(Aquatic animal production is primary industry)
 - b. Aquatic animal production is one of several agricultural activities ² **G**
(Aquatic animal production is primary industry)
 - c. Aquatic animal production is one of several agricultural activities ³ **G**
(Other agriculture—NOT Aquatic animal production—is primary industry)
 - d. Aquatic animal production is a second income ⁴ **G**
(Primary employment is in another industry)

- G CBI 5.** Which of the following statements best describes your aquatic animal production activity? (Check one box)
- a. I am an independent grower ¹ **G**
 - b. I am a grower that contracts with another company
for quantity and price prior to sale ² **G**
 - c. I am part of a production cooperative ³ **G**

G CBI 6. Complete the following table for fiscal year 1999. Provide the SIC (Standard Industrial Classification) or NAICS (North American Industrial Classification System) code for the facility. These codes are listed in Appendix A and are used by the Bureau of the Census. Provide best estimates for the percent each industry contributes to the facility by revenue and production.

	Industry Classification			Row Total
	Primary Industry	Secondary Industry	Other	
SIC	— — — —	— — — —	— — — —	
NAICS	— — — — — — — —	— — — — — — — —	— — — — — — — —	
Percent of Revenue	%	%	%	100%
Percent of Production (lbs.)	%	%	%	100%

PROCESS WATER

G CBI 7. Please indicate if each of the following water source(s) is used for aquatic animal production at this facility.

- | | <u>YES</u> | <u>NO</u> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|
| a. Well water | ¹ G | ² G |
| b. Surface water (if yes, check the box on the right and the applicable box below to indicate if the water source is marine, fresh, or both) | ¹ G | ² G |
| 1. Marine water source | ¹ G | |
| 2. Fresh water source | ² G | |
| c. City water | ¹ G | ² G |
| d. Storm water collection system | ¹ G | ² G |
| e. Other (if yes, please describe) | ¹ G | ² G |
-

G CBI 8. What is this facility's approximate average daily volume of discharge (measured or estimated)? Also provide the estimated number of days you discharged in 1999. (Respond even if discharges are small, e.g., hatcheries and nurseries.)

- a.** Volume of discharge _____
gallons per day
- b.** Number of days discharge occurred in 1999. _____
numbers of days
- c.** Not applicable, no discharge (e.g., shellfish aquaculture using rafts or located in the intertidal area or net pens) ¹ **G**

WASTEWATER TREATMENT

G CBI 9. To where does the facility discharge its aquatic animal production wastewater? Indicate if each of the following applies.

	<u>YES</u>	<u>NO</u>
a. Publicly Owned Treatment Works (POTW or sewage treatment plant)	¹G	²G

If yes, name of POTW: _____

b. River, stream, or other waterway	¹G	²G
------------------------------------------------------	----------------------	----------------------

If yes, NPDES NUMBER (if applicable) _____

If you do not have a NPDES permits number, identify the name of the water body and the location (miles) where discharged _____

c. Other (for example a lagoon or pond. If yes, please describe) . . .	¹G	²G
-------------------------------------------------------------------------------	----------------------	----------------------

G CBI 10. Please indicate if each of the following treatment system(s) is used by this facility with aquatic animal production wastewater before discharge.

¹**G** Check this box if no treatment system is used and go to question 11.

	<u>YES</u>	<u>NO</u>
a. Sedimentation basins	¹ G	² G
b. Aeration Lagoons	¹ G	² G
c. Nitrification	¹ G	² G
d. Denitrification	¹ G	² G
e. Chlorination	¹ G	² G
f. Dechlorination	¹ G	² G
g. Clarifiers	¹ G	² G
h. Screens (e.g., micro screens, rotating screens, vibrating screens, etc.)	¹ G	² G
i. Waste stabilization lagoons	¹ G	² G
j. Wetland treatment system	¹ G	² G
k. Ozonation	¹ G	² G
l. UV Radiation	¹ G	² G
m. Other, including best management practices (please describe) . .	¹ G	² G

G CBI 11.

	<u>YES</u>	<u>NO</u>
a. Do you treat your wastewater before you discharge it?	¹ G	² G
b. Do you recycle or reuse wastewater in your system?	¹ G	² G
If 11b is yes, what percentage of your wastewater do you recycle or reuse?		_____ %
If 11b is yes, do you treat the wastewater before reusing or recycling it?	¹ G	² G
c. For pond operators, what percent of the waste water that is drained is restored to the pond after harvesting or maintenance?		_____ %

G CBI 12. Please indicate if each of the following waste disposal methods is used by this facility for residual wastes (solids).

¹**G** Check this box if no waste disposal method is used and go to question 13.

	<u>YES</u>	<u>NO</u>
a. Storage/lagoons	¹ G	² G
b. Incineration	¹ G	² G
c. Composting	¹ G	² G
d. Land application	¹ G	² G
e. Vacuum trucks	¹ G	² G
f. Municipal systems/POTWs	¹ G	² G
g. Other (if yes, please describe)	¹ G	² G

G CBI 13. a. Describe the wastewater treatment system for aquatic animal production wastewater at your facility or provide a process flow diagram. (For example, the wastewater flows through a screen to a settling basin. The liquid is spray irrigated on pasture land. The solid wastes from the settling basin are composted.) Use the Comments section at the end of the questionnaire if more room is needed.

¹**G** Check this box if this facility has no wastewater treatment system for aquatic animal production wastewater and go to question 13b.

b. Describe any best management practices used at your facility to reduce generation of wastes and wastewater discharges. (For example, feed management practices to reduce residual wastes, recycled water to reduce water use.)

¹**G** Check this box if no best management practices are used at the facility.

G CBI 14. Complete the table for **wastewater treatment** investment costs.

¹**G** Check this box if there have been no wastewater treatment investment costs since the inception of this facility and go to question 15.

Equipment	Year Installed	Original Cost	Number Of Years Over Which The Investment Is Depreciated
		\$	
		\$	
		\$	
		\$	
		\$	
		\$	

G CBI 15. The purpose of this question is to understand the total annual operating costs at your facility in 1999, including costs associated with wastewater treatment. In column 2, provide your best estimate of the total annual quantity of each item used in the unit measure provided. If you do not use a particular item, please enter "0" rather than leaving it blank. In column 3, provide your best estimate of the price per unit. In column 4, provide your total annual cost (equal to column 2 multiplied by column 3). In column 5, provide your best estimate of the percentage of your cost for that item that is attributed to wastewater treatment only.

ESTIMATED TOTAL ANNUAL OPERATING COSTS AT YOUR FACILITY IN 1999					
	1	2	3	4	5
Item	Unit	Total Quantity	Unit Price	Your Cost (Col 2*Col 3)	Percent of Wastewater Treatment
Eggs	eggs				N/A
Seed (shellfish operations)	pounds				N/A
Fingerlings	pounds				N/A
Broodstock	pounds				N/A
Feed	tons/acre				
Depredation (specify unit)	lb or acres				
Chemicals:					
Antibiotic feed	lbs/acre				
Liquid Fertilizer	Gals/acre				
Dry Fertilizer	lbs/ac				
Liquid Insecticide, Pesticide, Piscicide, or Herbicide	Gals/acre				
Dry Insecticide, Pesticide, Piscicide, or Herbicide	lbs/acre				
Copper Sulfate	lbs/acre				
Potassium Permanganate	lbs/acre				
Lime (Hydrated)	lbs/acre				
Other (please list)					
Paid Labor:					
Part-time	hour				
Full-time	hour				
Paid Management	hour				
Unpaid Labor:					
Part-time	hour				

Full-time	hour				
Unpaid Management	hour				
15. Continued					
ESTIMATED TOTAL ANNUAL OPERATING COSTS AT YOUR FACILITY					
	1	2	3	4	5
Item	Unit	Total Quantity	Unit Price	Your Cost (Col 2*Col 3)	Percent of Wastewater Treatment
Repairs and Maintenance:					
Machinery/Equipment	year				
Levee Repairs/Pond Renovation	year				
Electricity (aeration)	hour				
Well Operation	acre-ft				
Gasoline, fuel, oil	hour				
Harvesting and Hauling	pounds				N/A
Miscellaneous Supplies	total dollars				
Utilities (telephone)	total dollars				N/A
Advertising/Marketing	total dollars				N/A
Accounting/Legal	total dollars				N/A
Depreciation and amortization	total dollars				N/A
Cash rent/lease payments	total dollars				N/A
Insurance	total dollars				N/A
Taxes (real estate, property)	total dollars				N/A
Interest expense (mortgage)	total dollars				N/A
Total					

G CBI 16. Complete the table for pollutants in wastewater that were sampled/monitored at your facility. Provide the name of the pollutant sampled or monitored, the year the last sample was drawn and the number of times each year the sample was drawn. Provide a total of 3 years of data if available, beginning with the most recent sampling year.

¹**G** Check this box if no sampling/monitoring of wastewater has been conducted at this facility.

Pollutant Sampled Monitored	Years Sampled/Monitored and Frequency (Weekly, Monthly, Quarterly, etc.) of Sampling Per Year					
	Year	Frequency	Year	Frequency	Year	Frequency

AQUATIC ANIMAL PRODUCTION OPERATIONS

G CBI 17. For each aquatic animal production system in the table below, please indicate whether the system was used in 1999, the number of units used, and the acreage of land used for aquatic animal production activities.

Aquatic Animal Production System Type	If Yes:				Number of Acres Used for Aquatic Animal Production?
	Was this System Used in 1999?		Number of Units Used? (Check the appropriate unit of measure)		
	YES	NO	Number	Units	
a. Net Pens	¹ G	² G		G cubic meters G acres	
b. Ponds	¹ G	² G		G cubic meters G acres	
c. Recirculating Systems	¹ G	² G		G cubic meters G acres	
d. Flow-Through Systems (raceways)	¹ G	² G		G cubic meters G acres	
e. Floating Mariculture (mussels, oyster trays/bags)	¹ G	² G		G cubic meters G acres	
f. Other (if yes, please describe) _____	¹ G	² G		G cubic meters G acres	

18. How many finfish, shellfish, or other animal aquaculture (e.g., alligators, turtles, frogs) escaped from your facility in 1999?

¹ G Check this box if there were no escapes at this facility in 1999 and go to question 19.

Number Escaped

a. Escapes of native species in 1999 (approximate number of escapes) _____

b. Escapes of non-native species in 1999 (approximate number of escapes) _____

19. What was the percent loss of fish or other animal aquaculture from this facility in 1999 for each of the following? (Please do not include the number reported as “escaped” in question 18.)

Percent Loss

- a. Loss from predation _____ %
- b. Loss from disease _____ %
- c. Other loss (please describe) _____ %

G CBI 20. For fiscal year 1999, indicate the number of tons of aquatic animal production feed used annually and in your peak month, the type of feed used and the feed content.

Time Period	Aquatic Animal Production Feed Used (in tons)	Feed Type	Feed Content
Annually			____ % protein ____ % phosphorus
Peak Month			____% trace minerals (please identify those specified in feed) _____

ECONOMIC AND FINANCIAL INFORMATION

In the Clean Water Act, Congress required EPA to select the “best available technology *economically achievable*” for pollution control (Section 304(b)(2)). The italicized words require EPA to evaluate the impacts of potential additional water pollution control costs on the industry. One element of EPA’s economic analysis will be a determination of the proposed regulation’s impacts on individual facilities. The analysis will compare facility-specific costs of compliance to facility financial data. At an extreme, pollution control costs might be so large that a facility would choose to close or cease operations rather than incur the compliance costs. For effluent guidelines, EPA usually estimates the likelihood of facility closures and also estimates financial impacts that are less severe than closure. To estimate potential closures, EPA generally uses a standard financial decision model which predicts closure if the net income changes from positive to negative after incurring pollution control costs. Farm-level financial information is the most accurate way to construct the estimates necessary for the closure model and analysis. Other impacts, such as losses in output, losses in revenue, and losses in employment are calculated directly from the closure analysis and corresponding facility-level data. Thus, the facility-level financial data is critical to projecting the economic impacts from the proposed regulation.

OWNERSHIP INFORMATION

G CBI 21. What is the name and address of the company or entity that owns this facility?

Name of company: _____

Mailing address or P.O. box: _____

City: _____ State: _____ Zip: _____

G CBI 22. What is the SIC or NAICS code for the company or entity that owns this facility?

a. SIC _ _ _ _ _

b. NAICS _ _ _ _ _

G CBI 23. Which of the following corporation types best describes this company or entity? (Check one box)

- a. Corporation © Corporation) ¹ **G**
- b. Subchapter S Corporation/Limited Liability Corporation ² **G**
- c. Limited partnership ³ **G**
- d. General partnership ⁴ **G**
- e. Sole proprietor ⁵ **G**
- f. Federal hatchery ⁶ **G**
- g. State hatchery ⁷ **G**
- h. Research facility (e.g., university) ⁸ **G**
- i. Other (please describe) ⁹ **G**

G CBI 24. Please check the box that best describes the company or entity listed in Question 21? (Check one box)

- a. Publicly held (company's stock is traded on the open market) ¹ G
- b. Privately held ² G
- c. Government entity ³ G

G CBI 25. What is the first month of this facility's fiscal year? Please enter 01 for January, 02 for February, etc.

First month of fiscal year _____

G CBI				COPY # ___ of ___
<p>26. Aquatic animal production facilities operated by the company (Facility is defined on page v). List any additional aquatic animal production facilities in the United States that are operated by the company. Provide the name, city, state, and zip of the facility, and the product category for the primary species raised. Use the first line for the facility in this survey. If additional spaces are required, photocopy these pages BEFORE writing on them and label each copy in the space provided at the top right corner of the page. Appendix B lists product categories. Use <u>only</u> these codes to identify aquatic animal production activities at each facility. The respondent should call the Helpline at 888-xxx-xxxx if he or she raises a species not listed in Appendix B.</p>				
Facility Name	City	State	ZIP	Primary Product Category
				___ ___ ___
				___ ___ ___
				___ ___ ___
				___ ___ ___
				___ ___ ___
				___ ___ ___

EMPLOYMENT

- G CBI 27.** For fiscal year 1999, list the average number of employees at the company.
 - a. _____ Full-time employees (\geq 40 hours per week)
 - b. _____ Part-time employees ($<$ 40 hours per week)

INCOME STATEMENTS

- G CBI 28.** Please check the box identifying the accounting method used at your facility. (See Economic and Financial definitions on page viii.)
 - a. Cash (complete Parts I and II for each year) ¹ **G**
 - b. Accrual (complete Parts II and III for each year) ² **G**

Questions 29 through 31 request income information for 1999-1997, respectively. The format follows that of Schedule F (Form 1040) where a facility using the cash accounting method completes Parts I and II while a facility using the accrual accounting method completes Parts II and III. EPA structured the questions in order to understand the role of aquatic animal production to the facility and to the company or entity that owns the facility (if one exists). Report costs for aquatic animal production activities in column A. Report revenues and costs from all activities at the facility in Column B. Report revenues and costs for a company or entity that owns more than one facility in Column C.

G CBI			
29. Income statement information (1999). For fiscal year 1999, complete the following income statement information. In Part II, column A, report costs from aquatic animal production activities only . In column B, report revenues and costs for all activities at the facility. Costs for the facility should equal or be greater than costs for aquatic animal production. Report revenues and costs for a company that owns one or more facilities in column C. Costs for the company should include the cost for the facility in column B. Report amounts in dollars; round to the nearest thousand.			
PART I FACILITY INCOME—CASH METHOD		B Facility (All Activities) (in thousands)	C Company (in thousands)
a.	Net sales of aquatic animal products bought for resale (sales minus cost or other basis)	\$	\$
b.	Sales of aquatic animal products you raised (excluding fee-fishing)	\$	\$
c.	Income from fee-fishing operation (e.g., income from “fish-out” ponds or “pay-by-the-pound” lakes)	\$	\$
d.	Sales of other agricultural products co-located with aquatic animal production (e.g., rice grown in crawfish ponds)	\$	\$
e.	Sales of other agriculture products you raised that were not co-located with aquatic animal production	\$	\$
f.	Other income (e.g., taxable amounts of cooperative distributions, agricultural program payments, CCC loans, and crop insurance proceeds; custom hire [machine work]; and other income such as gasoline or fuel tax credit or refunds)	\$	\$
g.	Gross Income (sum of a through e)	\$	\$
PART II 1999 COSTS AND EXPENSES CASH AND ACCRUAL METHOD		A Aquatic animal production (in thousands)	B Facility (All Activities) (in thousands)
h.	Variable costs (purchases and operating expenses; do not include depreciation and amortization)	\$	\$
i.	Depreciation and amortization	\$	\$
j.	Fixed expenses other than interest (e.g., rental and lease payments, insurance, and real estate and property taxes.)	\$	\$
k.	Interest expense (e.g., mortgage)	\$	\$
l.	Total expenses (sum of g through j)	\$	\$
PART III FACILITY INCOME—ACCRUAL METHOD		B Facility (All Activities) (in thousands)	C Company (in thousands)
m.	Sales of aquatic animal products you raised (excluding fee-fishing)	\$	\$
n.	Income from fee-fishing operation (e.g., income from “fish-out” ponds or “pay-by-the-pound” lakes)	\$	\$
o.	Sales of agricultural activities co-located with aquatic animal production (e.g., rice grown in crawfish ponds)	\$	\$
p.	Sales of other agriculture products you raised that were not co-located with aquatic animal production	\$	\$
q.	Other income (e.g., taxable amounts of cooperative distributions, agricultural program payments, CCC loans, and crop insurance proceeds; custom hire [machine work]; and other income such as gasoline or fuel tax credit or refunds)	\$	\$

r. Inventory change (Inventory at beginning of year plus cost of products purchased during the year minus inventory at end of year)	\$	\$
s. Gross income (sum of m through q, minus r)	\$	\$

G CBI

30. Income statement information (1998). For fiscal year 1998, complete the following income statement information. In Part II, column A, report costs from aquatic animal production activities **only**. In column B, report revenues and costs for all activities at the facility. Costs for the facility should equal or be greater than costs for aquatic animal production. Report revenues and costs for a company that owns one or more facilities in column C. **Report amounts in dollars; round to the nearest thousand.**

PART I FACILITY INCOME—CASH METHOD	B Facility (All Activities) (in thousands)	C Company (in thousands)	
a. Net sales of aquatic animal products you bought for resale (Sales minus cost or other basis)	\$	\$	
b. Sales of aquatic animal products you raised (excluding fee-fishing)	\$	\$	
c. Income from fee-fishing operation (e.g., income from “fish-out” ponds or “pay-by-the-pound” lakes)	\$	\$	
d. Sales of other agricultural products co-located with aquatic animal production (e.g., rice grown in crawfish ponds)	\$	\$	
e. Sales of other agriculture products you raised that were not co-located with aquatic animal production	\$	\$	
f. Other income (e.g., taxable amounts of cooperative distributions, agricultural program payments, CCC loans, and crop insurance proceeds; custom hire [machine work]; and other income such as gasoline or fuel tax credit or refunds)	\$	\$	
g. Gross Income (sum of a through e)	\$	\$	
PART II COSTS AND EXPENSES CASH AND ACCRUAL METHOD	A Aquatic animal production (in thousands)	B Facility (All Activities) (in thousands)	C Company (in thousands)
h. Variable costs (purchases and operating expenses; do not include depreciation and amortization)	\$	\$	\$
i. Depreciation and amortization	\$	\$	\$
j. Fixed expenses other than interest (e.g., rental and lease payments, insurance, and real estate and property taxes.)	\$	\$	\$
k. Interest expense (e.g., mortgage)	\$	\$	\$
l. Total expenses (sum of g through j)	\$	\$	\$
PART III 1998 FACILITY INCOME ACCRUAL METHOD	B Facility (All Activities) (in thousands)	C Company (in thousands)	
m. Sales of aquatic animal products you raised (excluding fee-fishing)	\$	\$	
n. Income from fee-fishing operation (e.g., income from “fish-out” ponds or “pay-by-the-pound” lakes)	\$	\$	
o. Sales of agricultural activities co-located with aquatic animal production (e.g., rice grown in crawfish ponds)	\$	\$	
p. Sales of other agriculture products you raised that were not co-located with aquatic animal production	\$	\$	

q. Other income (e.g., taxable amounts of cooperative distributions, agricultural program payments, CCC loans, and crop insurance proceeds; custom hire [machine work]; and other income such as gasoline or fuel tax credit or refunds)	\$	\$
r. Inventory change (Inventory at beginning of year plus cost of products purchased during the year minus inventory at end of year)	\$	\$
s. Gross income (sum of m through q, minus r)	\$	\$

G CBI				
31. Income statement information (1997). For fiscal year 1997, complete the following income statement information. In Part II, column A, report costs from aquatic animal production activities only . In column B, report revenues and costs for all activities at the facility. Costs for the facility should equal or be greater than costs for aquatic animal production. Report revenues and costs for a company that owns one or more facilities in column C. Report amounts in dollars; round to the nearest thousand.				
PART I FACILITY INCOME—CASH METHOD		B Facility (All Activities) (in thousands)	C Company (in thousands)	
a.	Net sales of aquatic animal products you bought for resale (Sales minus cost or other basis)	\$	\$	
b.	Sales of aquatic animal products you raised (excluding fee-fishing)	\$	\$	
c.	Income from fee-fishing operation (e.g., income from "fish-out" ponds or "pay-by-the-pound" lakes)	\$	\$	
d.	Sales of other agricultural products co-located with aquatic animal production (e.g., rice grown in crawfish ponds)	\$	\$	
e.	Sales of other agriculture products you raised that were not co-located with aquatic animal production	\$	\$	
f.	Other income (e.g., taxable amounts of cooperative distributions, agricultural program payments, CCC loans, and crop insurance proceeds; custom hire [machine work]; and other income such as gasoline or fuel tax credit or refunds)	\$	\$	
g.	Gross Income (sum of a through e)	\$	\$	
PART II 1997 COSTS AND EXPENSES CASH AND ACCRUAL METHOD		A Aquatic animal production (in thousands)	B Facility (All Activities) (in thousands)	C Company (in thousands)
h.	Variable costs (purchases and operating expenses; do not include depreciation and amortization)	\$	\$	\$
i.	Depreciation and amortization	\$	\$	\$
j.	Fixed expenses other than interest (e.g., rental and lease payments, insurance, and real estate and property taxes.)	\$	\$	\$
k.	Interest expense (e.g., mortgage)	\$	\$	\$
l.	Total expenses (sum of g through j)	\$	\$	\$
PART III FACILITY INCOME—ACCRUAL METHOD		B Facility (All Activities) (in thousands)	C Company (in thousands)	
m.	Sales of aquatic animal products you raised (excluding fee-fishing)	\$	\$	
n.	Income from fee-fishing operation (e.g., income from "fish-out" ponds or "pay-by-the-pound" lakes)	\$	\$	
o.	Sales of agricultural activities co-located with aquatic animal production (e.g., rice grown in crawfish ponds)	\$	\$	
p.	Sales of other agriculture products you raised that were not co-located with aquatic animal production	\$	\$	
q.	Other income (e.g., taxable amounts of cooperative distributions, agricultural program payments, CCC loans, and crop insurance proceeds; custom hire [machine work]; and other income such as gasoline or fuel tax credit or refunds)	\$	\$	

r. Inventory change (Inventory at beginning of year plus cost of products purchased during the year minus inventory at end of year)	\$	\$
s. Gross income (sum of m through q, minus r)	\$	\$

G CBI

32. Assets and Liabilities (1999). For fiscal year 1999, complete the following information for assets and liabilities. If the facility is the company, complete both columns with the same entries. If certain items are not held on the facility's books, enter zero for the item under the "Facility" column. **Report amounts in dollars; round to the nearest thousand.**

	Facility (in thousands)	Company (in thousands)
ASSETS		
a. Current assets, excluding inventories (e.g., cash, accounts receivable, prepaid expenses)	\$	\$
b. Inventories (e.g., fish, fingerling, feed and supplies, etc.)	\$	\$
c. Non-current assets (e.g., real estate, buildings and improvements, pond system, machinery and equipment, broodstock, and investments in cooperatives)	\$	\$
d. Total assets (sum of a through c)	\$	\$
LIABILITIES AND EQUITY		
l. Current liabilities (including accounts payable, notes payable within one year, accrued expenses and taxes, and the current portion of long-term debt)	\$	\$
j. Long-term debt (including mortgages, notes, bonds, debentures, long-term leases, bank debt, and all other noncurrent liabilities such as deferred income taxes)	\$	\$
k. Owner equity and retained earnings	\$	\$
l. Total liabilities and equity (sum of l through k)	\$	\$

COPY # ___ of ___

G CBI

33. What was the total value of aquatic animal production revenues from the facility in 1999, 1998 and 1997? Fill in the code for each applicable category. These product categories are listed in Appendix B with their associated codes. Use only these codes in column A to identify the product categories. If additional product category spaces are required, photocopy these pages BEFORE writing on them and label each copy in the space provided at the top right corner of the page. **Report amounts in dollars; round to the nearest thousand.**

Product category	1999 Revenue (\$ in thousands) Not in Operation.....G (Leave column blank)	1998 Revenue (\$ in thousands) Not in Operation.....G (Leave column blank)	1997 Revenue (\$ in thousands) Not in Operation.....G (Leave column blank)
_____	\$	\$	\$
_____	\$	\$	\$
_____	\$	\$	\$
_____	\$	\$	\$
_____	\$	\$	\$
_____	\$	\$	\$
_____	\$	\$	\$
_____	\$	\$	\$
_____	\$	\$	\$
Total	\$	\$	\$

Check box if data are best estimates ¹G

COPY # ___ of ___

G CBI

34. What were the total quantities of aquatic animal products sold from the facility in 1999, 1998 and 1997? Fill in the code for each applicable category. These product categories are listed in Appendix B with their associated codes. These codes must be used below to identify the product categories. If additional product category spaces are required, photocopy these pages BEFORE writing on them and label each copy in the space provided at the top right corner of the page.

Codes for Units:

- 1 Pounds live weight 3 Pounds per 1000 fish 5 Dozen
- 2 Number or Count 4 Live dry bushels

Product category	Units (Use code from above)	1999 Sales Not in Operation.....G (Leave column blank)	1998 Sales Not in Operation.....G (Leave column blank)	1997 Sales Not in Operation.....G (Leave column blank)
Total				

Check box if data are best estimates ¹G

APPENDIX A
SIC AND NAICS CODES

STANDARD INDUSTRIAL CLASSIFICATION (SIC)

0273	Animal aquaculture
0921	Fish hatcheries and preserves

NORTH AMERICAN INDUSTRIAL CLASSIFICATION SYSTEM (NAICS)

112511	Finfish farming and fish hatcheries
112512	Shellfish farming
112519	Other animal aquaculture

APPENDIX B

PRODUCT CATEGORIES AND CODES

The product category codes to be used in the survey are given below. For example, a facility that raises foodsize hybrid striped bass would use product code 34 while a facility that raises seed stock oysters would use product code 322. If you do not see a product code for what you raise, please call the toll-free Helpline at 1-888-xxx-xxxx to get a product code.

Species	PRODUCT CODE					
	Eggs	Fry (under 2 inches or less than 2 lbs/1000 fish)	Fingerlings (2 to 6 inches or 2 lbs to 60 lbs/1000 fish)	Stockers (over 6 inches or 60 lbs to 750 lbs/1000 fish)	Foodsize (over 3/4 lb per fish)	Broodfish (used for breeding)
FOOD FISH						
Catfish	10	11	12	13	14	15
Trout	20	21	22	23	24	25
Hybrid Striped Bass	30	31	32	33	34	35
Carp	40	41	42	43	44	45
Perch	50	51	52	53	54	55
Salmon	60	61	62	63	64	65
Sturgeon	70	71	72	73	74	75
Tilapia	80	81	82	83	84	85
Walleye	90	91	92	93	94	95
BAIT FISH						
Fathead Minnows	100	101	102	103	104	105
Golden Shiners	110	111	112	113	114	115
Feeder Goldfish	120	121	122	123	124	125
ORNAMENTAL FISH						
Koi	130	131	132	133	134	135
Ornamental Goldfish	140	141	142	143	144	145
Tropical Fish	150	151	152	153	154	155
SPORT OR GAME FISH						
Sport or game fish	160	161	162	163	164	164

Species	PRODUCT CODE		
	Fry /Initial Stock	Foodsize	Breed/Seed Stock
CRUSTACEANS			
Crawfish	200	201	202
Shrimp	210	211	212
Softshell Crabs	220	221	222
Other Crustaceans	230	231	232
MOLLUSKS			
Clams	300	301	302
Mussels	310	311	312
Oysters	320	321	322
Other Mollusks	330	331	332
OTHER ANIMAL AQUACULTURE			
Alligators	400	401	402
Frogs (not wild catch)	410	411	412
Turtles	420	421	422
Other Animal	430	431	432